

Keynote to Issue: A Challenge to Dream

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It has become popular in many circles, including educational ones, to criticize television for "not living up to its potential." Like most clichés, this one misses the mark.

TV has shown us the moon, the earth and the stars. It has brought into our home and our schools man at his best and at his worst. It has shown us our democracy in some of its finest hours and in some of its poorest hours. Yes, and it has distracted us, bored us and even insulted us.

But these faults are not inherent in television. Rather, television's failings can be ascribed for the most part to the people responsible for its programming. And, of course, since our main concern in this issue of *Educational Technology* is the use of TV in education, I must point out that the failings in this area rest in good measure on those persons responsible for how instructional TV is used and programmed.

Therefore, I'd like to issue a challenge to educators concerned with TV: Match the ingenuity

Widely recognized as the "Father of Television" because of inventions, such as that of camera tubes utilizing image storage, which have made modern electronic television possible, Dr. V.K. Zworykin has had a profound impact on social and cultural aspects of life throughout the world. Dr. Zworykin, Honorary Vice President of RCA and Technical Consultant to RCA Laboratories, joined RCA in 1929. He received his undergraduate training at the Petrograd Institute of Technology, which granted him an E.E. degree in 1912. This was followed by postgraduate work in physics with Paul Langevin at College de France. After the First World War, Dr. Zworykin came to the United States and joined the research staff of Westinghouse in Pittsburgh, where he made important contributions in photoelectricity, facsimile and sound movies. He was granted a Ph.D. degree by the University of Pittsburgh in 1926. In 1929 he went to RCA, where he was placed in charge of the Electronic Research Laboratory, whose continuously expanding activities he directed first in Camden, and since 1942 in Princeton, until 1954. In this capacity, Dr. Zworykin was concerned not only with the perfection of all-electronic television for which he had created the basis during his Westinghouse period by the invention of the iconoscope and kinescope, but of a multiplicity of other important electronic devices, such as the secondary emission multiplier, the image tube and the electron microscope.

and innovation of the engineers and scientists who developed television's technology; don't be afraid to dream about going beyond the confines of the known, the conventional and the convenient in your use of television for education—and you will destroy the cliché.

To begin with, I suggest you ask yourself this question. Do we need conventional schools, classrooms and campuses to use television to its fullest educational potential?

There are two technological developments, in what might be called the gestation period, that could have a profound effect on educational methods or, perhaps I should say, on education.

One is the use of satellites to transmit TV signals directly to TV receivers in every corner of the globe. The other is the prerecording of TV programs on inexpensive discs, similar to audio records, that can play directly into any television receiver.

Satellite television will have its primary educational role, I believe, in the so-called underdeveloped areas, where there are very few, if any, costly TV transmitting stations, and, for that matter, not too many TV receivers.

The satellites will be able to relay programs from transmitters thousands of miles away directly to community television sets. Whether these community TV sets concentrate on cops-and-robber programs and enlarge the image of the Ugly American or on programs that will help the viewers grow into their rightful place in this world depends, to a large degree, I submit, on whether those of you in education curse TV's darkness or light some ingenious candles.

Likewise, if you are innovative enough, videodiscs will make it possible for you to convert many of the TV sets in affluent societies into at least part-time classrooms.

To be sure, many videodiscs will be little more than updated soap operas. But I like to think of them as living books. Many books, perhaps most of them, have little real value. Yet, other books contain the works of Shakespeare and Shaw, the art of Rembrandt and Renoir, and the wisdom of Aristides and Aristotle, all of which videodiscs can also provide.

Of course, it is much easier to propose than to accomplish what I am suggesting. In fact, it probably sounds ridiculous to you, sort of an impossible dream.

But then, educators shouldn't be afraid to dream. Almost 70 years ago in Russia, Professor Boris Rosing first told me of his dream—electronically taking and transmitting live pictures through the ether. □